

Curriculum Vitae
Anooshiravan Ansari

Risk Management Research Center
International Institute of Earthquake Engineering and Seismology (IIEES)
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Date of Birth: 17 Apr 1976, Tehran, Iran
Gender: Male
Nationality: Iranian

Education:

Bachelor of Science: Civil Engineering 1994-1998 Univ. of Tehran **15.81 / 20** (3.32/4)
Master of Science: Earthquake Engineering 1998-2000 Univ. of Tehran **17.90 / 20** (3.80/4)
Thesis subject: "Calculation of Fuzzy Response Spectra"

Ph. D.: Earthquake Engineering 2007 Univ. of Tehran
Thesis subject: "New Methods for Analysis of Seismic Data in Finite Fault Inverse Problem"

Educational Honors:

2000: The 1st student among 9 M.S. graduates of earthquake engineering subdivision.
2000: The 4th student among 95 M.S. graduates of civil engineering department.
2000: Achieving the 1st rank among 110 M.S. participants in the Ph.D. entrance competition of University of Tehran.
1994: Achieving 169th rank among 800000 participants in the nationwide university entrance competition.

Occupation:

2009-2016: Assistant Professor, International Institute of Earthquake Engineering and Seismology (IIEES)
2016-Now: Associate Professor, Institute of Earthquake Engineering and Seismology (IIEES)

Professional Honors:

2013: Top research manager in IIEES
2015: Top Technology Developer in IIEES

Professional Responsibilities:

2009- 2014: Head of Broadband Seismic Network of Iran in IIEES
2014-2016 Head of Equipment and Laboratories Group in IIEES
2016-2017: Head of Technology Group in IIEES
2017-Now: Head of Planning Group in IIEES

Research Projects:

2011: Development of Fuzzy Attenuation Relationship
2012: Background noise study of broadband seismic network of Iran
2013: Characteristic relationships of strong motion database of Iran
2013: Spectral acceleration maps of Iran
2014: Spectral acceleration maps of Iran using Monte Carlo simulation method

2015: Design and deployment of strong motion network of Hirvi Dam
2015: Design and producing of HAT acceleration sensors
2015: Design and producing of optical seismometers
2016: Optimization of broadband seismic network of Iran
2016: Development of local magnitude (ml) relationship using broadband seismic data of Iran
2019: Planning and Development of RAISE software

Courses and Lectures:

- Seismic signal processing
- Inverse problem in geophysics
- Engineering seismology
- Advanced mathematics
- Seismic hazard analysis

Major Scientific Papers:

- 1) **A. Ansari** and A. Noorzad, "Using Fuzzy Mathematics for Modeling Uncertainties Involved in Seismic Hazard Analysis", 10th Conference of Geophysics, Tehran, Iran 1999. (in Persian)
- 2) Sh. Soroushian, J. Farjoudi, **A. Ansari**, "Studying the Effect of Acceleration Record Correction Using Wavelet Denoising Method on Non-linear Response spectrum", 3rd Symposium of Natural Disaster Mitigation, University of Tehran, 2008. (in Persian)
- 3) **A. Ansari**, A. Noorzad, "A New Method for Calculation of Fuzzy Response Spectra of Earthquake Motion in Lowlands", Lowland Technology International, Vol6, No. 1, June 2004.
- 4) **A. Ansari**, A. Noorzad, "Application of Fuzzy Logic in Nonlinear Seismic Analysis of Structures", 12th European Conference on earthquake Engineering, London, Britain, 2001
- 5) "**A. Ansari**, A. Noorzad, M. Mortazavi,"Calculation Of Probabilistic Fuzzy Response Spectra Of Earthquake", 13th World Conference of Earthquake Engineering, Vancouver, Canada, Aug. 2004.
- 6) Literature Review of Seismic Hazard Anlysis, Ministry of Power, Research and Development Dept. June 2004.
- 7) Zafarani, H., Noorzad, A., **Ansari A.**, 2005. "Generation of near-fault response spectrum for a large dam in Iran". Hydropower and Dams 12, Issue 4, 51-55.
- 8) Strong Motion Analysis of December 25th Bam Earthquake, Faculty of Engineering, University of Tehran Press.
- 9) **A. Ansari**, A. Noorzad, M. Zare, "Application of wavelet multi-resolution analysis for correction of seismic acceleration records", J. Geophys. Eng. 4 (2007) 362–377.
- 10) M. Mousavi, H. Zafarani, A. Noorzad, **A. Ansari**, K. Bargi, " Analysis of Iranian strong-motion data using the specific barrier model", J. Geophys. Eng. 4 (2007) 415–428.
- 11) H. Zafarani_, M. Mousavi, As. Noorzad, **A. Ansari**, "Calibration of the specific barrier model to Iranian plateau earthquakes and development of physically based attenuation relationships for Iran", Soil Dynamics and Earthquake Engineering, (2008) 28, 550-576.
- 12) M. J. Abedini, M. Nasser, **A. Ansari**, "Cluster-based ordinary kriging of piezometric head in West Texas/New Mexico–Testing of Hypothesis", J. Hydrology, accepted for publication.

- 13) **A. Ansari**, A. Noorzad, H. Zaferani, "Clustering Analysis of the Seismic Catalog of Iran", *Computers and Geosciences*, (2009) 35(2) 403-408.
- 14) Zafarani, H., Noorzad, A., Bargi, KH., **Ansari, A.** "Recursive evaluation of time convolution integrals in the spectral boundary integral method for mode III dynamic fracture problems" *Computer and Geosciences*, (2009) 35, 403-408.
- 15) Zafarani, H., Noorzad, A., **Ansari, A.**, Bargi, KH., "Stochastic modeling of Iranian earthquakes and estimation of ground motion for future earthquakes in Greater Tehran", *Soil Dynamics and Earthquake Engineering*, 29 (2009) 722–741.
- 16) Soleymani Shishvan S., Noorzad A., **Ansari A.**, "A time integration algorithm for linear transient analysis based on the reproducing kernel method", *Comput. Methods Appl. Mech. Engrg.* 198 (2009) 3361–3377.
- 17) Shahbazi Majd N., **Ansari A.**, Noorzad A., "A Study on Iran's Site Classification by Relating Shear Wave Velocity to H/V Spectral Ratio Parameters, Using Adaptive Neuro-Fuzzy Inference System", *TC4 Satellite Conference of Earthquake Geotechnical Engineering (TC4-SCEGE)*, 2-3 October, 2009.
- 18) **Ansari A.**, Noorzad A., Zafarani H., Vahidifard H., "Correction of highly noisy strong motion records using a modified wavelet de-noising method", *Soil Dyn Earthquake Eng* (2010), doi:10.1016/j.soildyn.2010.04.025.
- 19) B. Hassani, H. Zafarani, J. Farjoodi, **A. Ansari**, "Estimation of site amplification, attenuation and source spectra of S-waves in the East-Central Iran", *Soil Dynamics and Earthquake Engineering* 31 (2011) 1397–1413
- 20) Mousavi M., **Ansari A.**, Zafarani H., Azarbakht A., "Selection of ground motion prediction models for seismic hazard analyzes in Iran Zagros region", *Journal of Earthquake Engineering* (2012).
- 21) Zafarani H., Vahidifar H., **Ansari A.**, "Sensitivity of ground-motion scenarios to earthquake source parameters in the Tehran metropolitan area, Iran", *Soil Dynamics and Earthquake Engineering* 43 (2012) 342–354.
- 22) Zafarani H., Vahidifar H., **Ansari A.**, "Prediction of Broadband Ground-Motion Time Histories: The Case of Tehran, Iran", *Earthquake Spectra*, Volume 29, No. 2, pages 633–660 (2013).
- 23) M. Nasserli, B. Zahraie, **A. Ansari** and D. P. Solomatine, "Uncertainty assessment of monthly water balance models based on Incremental Modified Fuzzy Extension Principle method" , *Journal of Hydroinformatics* (2013).
- 24) Maybodan, M., Zare, M., Hamzehloo, H., Peresan, A., **Ansari, A.**, Panza, G. F. "Analysis of precursory seismicity patterns in Zagros (Iran) by CN algorithm", *Turkish Journal of Earth Sciences* (2013)
- 25) **Ansari. A.**, Amini, K., "Broadband Seismic Network of Iran and Increasing Quality of Seismic Recordings", *Seismological Research letter*, (2014).
- 26) Nasserli, M., **A. Ansari**, and B. Zahraie (2014), "Uncertainty assessment of hydrological models with fuzzy extension principle: Evaluation of a new arithmetic operator", *Water Resour. Res.*, 50, 1095–1111, doi:10.1002/2012WR013382.
- 27) Kale, O, Akkar, S, **Ansari, A.**, Hamzehloo, H., "A Ground-Motion Predictive Model for Iran and Turkey for Horizontal PGA, PGV, and 5% Damped Response Spectrum: Investigation of Possible Regional Effects", *Bulletin of the Seismological Society of America*, (2015) Vol. 105, No. 2A, pp. 963–980
- 28) **Ansari, A.**, Firuzi, E, EtemadSaeed, L., "Delineation of Seismic Sources in Probabilistic Seismic-Hazard Analysis Using Fuzzy Cluster Analysis and Monte Carlo Simulation", *Bulletin of Seismological Society of America*, Vol. 105, No. 4, (2015).
- 29) Esmaili, S., **Ansari A.**, Hamzehloo H., "New oscillation detector system based on the moiré technique", *Optical Engineering* 54 (10), (2015).

- 30) Soroushian S., Maragakis E. M., **Ansari, A.**, “Estimation of Vertical Floor Displacement Using a Wavelet De-Noising Method”, *Journal of Earthquake Engineering* (2016).
- 31) Etemadsaeed, L., Moczo P., Kristek J., **Ansari A.**, Kristekova M., “A no-cost improved velocity–stress staggered-grid finite-difference scheme for modeling seismic wave propagation”, *Geophys. J. Int.* (2016) 207, 481–511
- 32) Madahizadeh, Mostafazadeh M., **Ansari A.** “Long-Term Seismicity Behavior of the Zagros Region in Iran”, *Pure Appl. Geophys.* 173 (2016), 2637–2652.
- 33) Talebi, Zare M., Peresan A., **Ansari A.** “Long-Term Probabilistic Forecast for M C 5.0 Earthquakes in Iran”, *Pure Appl. Geophys.* (2017)
- 34) Amini H., Zare M., **Ansari A.**, “Fault Parameters And Macroseismic Observations Of May 10, 1997 Ardekul-Ghaen Earthquake”, *Journal of Seismology* (2017).
- 35) Fallah Tafti M., Amini Hosseini K., Firouzi E., Mansouri B., **Ansari A.**, "Ranking of GMPEs for Seismic Hazard Analysis in Iran Using LH, LLH and EDR Approaches", *Journal of Seismology and Earthquake Engineering (JSEE)*, p 139-161, (2017)
- 36) Houshmandviki A., **Ansari A.**, "Source Parameterization of Finite Faults in Earthquake Ground Motion Simulation", *Journal of Seismology and Earthquake Engineering (JSEE)*, p 261-271, (2017)
- 37) Sasani M., Ghayamghamian M., **Ansari A.**, “New magnitude scaling relations for earthquake early warning in the Alborz region, Iran”, *Acta Geophysica* , (2018).
- 38) Firuzi E., **Ansari A.**, Rashidabadi M., Amini-Hosseini K., "Developing Ground Motion Shaking Map for Sarpol-e Zahab, Iran (2017) Earthquake", *Journal of Seismology and Earthquake Engineering (JSEE)*, p 45-55, (2018)
- 39) Khansefid A., Bakhshi A., **Ansari A.**, “Development of declustered processed earthquake accelerogram database for the Iranian Plateau: including near-field record categorization”, *J Seismol* (2019).
- 40) Khansefid A., Bakhshi A., **Ansari A.**, “Empirical predictive model for generating synthetic non-stationary stochastic accelerogram of the Iranian plateau: including far and near field effects as well as mainshock and aftershock categorization”, *Bulletin of Earthquake Engineering* (2019).
- 41) Firuzi E. **Ansari A.**, Amini Hosseini K., Rashidabadi M., “Probabilistic earthquake loss model for residential buildings in Tehran, Iran to quantify annualized earthquake loss”, *Bulletin of Earthquake Engineering* (2019).